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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,642	08/28/2003	Robert J. Disser	DP-309696 7500/245	7466

7590 03/29/2004

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EXAMINER

WILLIAMS, THOMAS J

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,642

Applicant(s)

DISSER, ROBERT J.

Examiner

Thomas J. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-9,11 and 13-17 is/are rejected.
- 7) ☒ Claim(s) 2,4,10 and 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5-9, 11, and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,111,330 to Lochmahr et al.

Re-claims 1 and 17, Lochmahr et al. teaches a system and method for controlling a motor on a vehicle, comprising: receiving motor information; determining a first motor voltage and motor current; determining a resistance based upon the voltage and current values; determining a motor temperature value based upon the motor resistance value; and producing appropriate motor control signals based upon the temperature value, see abstract and summary and column 3 lines 57-67.

Lochmahr et al. specifically teaches that this method and system of sensing motor temperature is utilized on a vehicle, see column 2 line 5. However, Lochmahr et al. fails to specify if the motor in question is a brake motor. It would have been obvious to one of ordinary skill in the art to have simply utilized the teachings of Lochmahr et al., regarding motor temperature sensing, with each motor on the vehicle including any brake motors, thus providing an economical means by which to monitor the brake motor temperature so as to prevent overheating.

Re-claims 3 and 11, the motor is a DC brush type motor.

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Re-claims 5 and 13, the motor current value is selected from motor current information.

Re-claims 6-8 and 14-16, the temperature is determined by comparing the resistance value to a database, see column 4 lines 1-5. The use of lookup tables is known in the art.

Re-claim 9, Lochmahr et al. teaches the use of a microcontroller, which generally comprises memory and programming language, and is interpreted as a computer readable medium and computer program comprising: computer readable code for determining a first motor voltage value and motor current value; readable code for determining a motor resistance value from the voltage and current values; readable code for determining a temperature value based upon the resistance value; and computer readable code for producing motor control signals based upon the temperature value.

Lochmahr et al. specifically teaches a microcontroller is used for sensing motor temperature on a vehicle, see column 2 line 5. However, Lochmahr et al. fails to specify if the motor in question is a brake motor. It would have been obvious to one of ordinary skill in the art to have simply utilized the teachings of Lochmahr et al., regarding motor temperature sensing, with each motor on the vehicle including any brake motors, thus providing an economical means by which to monitor the brake motor temperature so as to prevent overheating.

Allowable Subject Matter

3. Claims 2, 4, 10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen et al. teaches limiting a current to a motor during overheating situations. Shirai et al. teaches brake motor temperature sensing.

5. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is (703) 305-1346. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder, can be reached at (703) 308-3421. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

TJW

March 23, 2004

THOMAS WILLIAMS
PATENT EXAMINER

Thomas Williams

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3-23-04